



PO No	Supplier	Line Item No	Ref No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total
PO038795	MEC002-VU	6	1	Net 30	D6103-003P	Round Alum Billet AS PER DWG D6103 REV. B MATERIAL: 7075-T7351 AS PER QQ-A-225/9 SIZE: 3.500" X 12.500" LONG				20	2/6/2018	20	S037823	Stock	2/1/2018	\$ 60.40 / pcs	0	\$1,208.00		
		7			D6104-005P	17-4 SS Roundbar 4.00" Od AS PER DWG D6104 REV. B MATERIAL: 17-4 PH AS PER AMS 4643 OR AISI 630 SIZE: 4.00" X 5.10" LONG				10		10	S037824	Stock	2/1/2018	\$ 54.20 / pcs	0	\$542.00		
										Total:	30	30							\$1,750.00	

Plex 2/1/2018 10:06 AM Dart.Dubois.Pascal



**Castle Metals®**

A. M. Castle & Co.

**PACKING SLIP/  
CERTIFICATE OF CONFORMANCE**

Page 1 of 1

Pack Slip No:2817870

Ship From:	Sold To:	Ship To:	Deliver To:
A. M. Castle & Co. Cleveland 26800 Miles Road Bedford Heights, OH 44146	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA

**Date Shipped**  
23-JAN-2018

**F.O.B.**  
ORIGIN

**Freight Terms**  
Prepaid

**Carrier**  
CASTLE\_NETWORK

**BOL No**  
2830741

**Delivery No**  
121553955

**Shipment Details**

Final Destination Branch -

Order No	Line No	Item No	Description
5014847	2	42464.MO	4.0000 RD.17CR-4NI STAINLESS RT.SOL TR COND A.132.0000-156.0000 CUT TO 5.1 IN (+.1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: AMS 5642

**Purchase Order No**  
38795

**Part Number**  
YOUR ITEM NUMBER: D6104-005

**Ordered Qty**  
10.00 PCS

**Invoice Qty**  
10.00 PCS

**Details**

ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY  
ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S

Email P/s and certs to: clavoie@dartaero.com

END USER: DART AEROSPACE

END-USE: COMMERCIAL AIRCRAFT PARTS

**Mill/Source**

NORTH AMERICAN

STAINLESS

556V

NET

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**Castle Metals®**

A. M. Castle & Co.

**PACKING SLIP /  
CERTIFICATE OF CONFORMANCE**

Page 1 of 1  
Pack Slip No:2817871

Ship From:	Sold To:	Ship To:	Deliver To:	
A. M. Castle & Co. (Canada) Inc. Toronto 2150 Argentia Road MISSISSAUGA, ON L5N 2K7	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms	Carrier	
23-JAN-2018	ORIGIN	Prepaid	BOL No LOCAL FLEET 2830742	Delivery No 121555610

**Shipment Details**

Final Destination Branch -

Order No	Line No	Item No	Description
5014847	1	8808.MO	3.5000..RD.7075.TT351.ALUMINUM.CF.144.0000 CUT TO 12.5 (IN) ( 1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: AMS-QQ-A-22519

**Purchase Order No**

Part Number

YOUR ITEM NUMBER: D6103-003

Ordered Qty

Invoice Qty

22.00 PCS

22.00 PCS

**Details**

ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY

ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S

Email P's and certs to: clavole@dartaero.com

END USER: DART AEROSPACE

END USE: COMMERCIAL AIRCRAFT PARTS

**Mill/Source**

ARCONIC INC

Heat Number

MA20171470

Mech ID

22

PCS

22

Width (IN)

22

Length (IN)

266.7582

Shipped Qty (LBS)

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A. M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned.

for credit.

Reviewed by Authorized Castle Metals Representative:

CASTLE METALS	Date:	Name:
002 TOR	2/3/18	<i>Eric</i>



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

**PURCHASE ORDER  
PO038795**

<b>Supplier:</b>	MEC002-VU Metaux Castle P.O. Box 4090 Stn A Toronto ON M5W 0E9 Canada	<b>PO No:</b>	PO038795
		<b>PO Date:</b>	1/16/18
		<b>Due Date:</b>	2/6/18
		<b>Purchase Order Revision:</b>	
		<b>Revision Date:</b>	
		<b>Ship-To Contact:</b>	Phone:
<b>Ship To:</b>	1270 Aberdeen Street Hawkesbury ON K6A 1K7 Canada Phone: 613-632-5200	<b>Via:</b>	Ground
		<b>Pymt Terms:</b>	Net 30
		<b>Freight Terms:</b>	
		<b>Special Comments:</b>	

**Items**

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	D6101-001P		7075-T7351 2X6X6.25 AS PER DWG D6101 REV. B SIZE: 6.00" X 6.250" X 2.00" THICK GRAIN DIRECTION ALONG 6.00" LENGTH MATERIAL: 7075-T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	2/6/18	40 pcs	0 pcs	40 pcs	\$26.88/pcs	\$1,075.20
<b>Line Item Note:</b> job# 170392										
2	D6101-003P		7075-T7351 2X6.25X7.875 AS PER DWG D6101 REV. B SIZE: 7.875" X 6.250" X 2.00" THICK GRAIN DIRECTION ALONG 7.875" LENGTH MATERIAL: 7075-T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	2/6/18	40 pcs	0 pcs	40 pcs	\$35.29/pcs	\$1,411.60
<b>Line Item Note:</b> job# 170393										
3	D6101-005P		7075-T7351 8.25X5.0X2.5 AS PER DWG.D6101 REV.B SIZE: 5.00" X 8.250" X 2.50" THICK GRAIN DIRECTION ALONG 5.00"" LENGTH MATERIAL: 7075-T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	2/6/18	60 pcs	0 pcs	60 pcs	\$36.20/pcs	\$2,172.00
<b>Line Item Note:</b> job# 170395										
4	D6101-007P		7075-T7351 8.25X7.75X2.5 AS PER DWG D6101 REV. B	Firmed	2/6/18	60 pcs	0 pcs	60 pcs	\$56.11/pcs	\$3,366.60



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO038795

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
			MATERIAL: 7075-T7351 (QQ-A-250/12) SIZE: 7.750" X 8.250" X 2.50" THICK GRAIN DIRECTION ALONG: 7.750" LENGTH TOLERANCE AS PER QUOTE +.030"/-.000"							
Line Item Note	job#170404									
5	D6101-013P		Saddle Billet AS PER DWG D6101 REV. B MATERIAL: 7075-T7351 (QQ-A-250/12) SIZE: 10.100" X 8.250" X 2.50" THICK GRAIN DIRECTION ALONG: 10.100" LENGTH TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	2/6/18	16 pcs	0 pcs	16 pcs	\$73.15/pcs	\$1,170.40
Line Item Note	job# 170396									
6	D6103-003P	5037823	Round Alum Billet AS PER DWG D6103 REV. B MATERIAL: 7075-T7351 AS PER QQ-A-225/9 SIZE: 3.500" X 12.500" LONG	Firmed	2/6/18	20 pcs	0 pcs	20 pcs	\$60.40/pcs	\$1,208.00
Line Item Note	job# 170397									
7	D6104-005P	5037824	17-4 SS Roundbar 4.00" Od AS PER DWG D6104 REV. B MATERIAL: 17-4 PH AS PER AMS 4643 OR AISI 630 SIZE: 4.00" X 5.10" LONG	Firmed	2/6/18	10 pcs	0 pcs	10 pcs	\$54.20/pcs	\$542.00
Line Item Note	job#170398									
										Grand Total: \$10,945.80
Order Notes										
Procurement Quality Clauses										
A005 right of entry										
A012 chemical and physical test report										
A016 personnel qualification										
A017 raw material identification (as applicable)										
A026 certification of material conformance										
A041 quality management system										
A042 dart notification by supplier										
A043 retention of quality documents										
A048 counterfeit parts avoidance, detection, mitigation and disposition program										
A049 supplier awareness										



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

## PURCHASE ORDER PO038795

### Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 1/16/18 10:49 AM *dart.baker.diane*



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 06103-003P  
 DATE: FEB 01 2018

PO/BATCH NO. 088795/5037823

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 2270pcs  
 QUANTITY INSPECTED: 2220pcs  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 3.500  
 THICKNESS RECEIVED: 3.500  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Asm-Q52-A-225</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Sheet # MA20171970</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	DA	ENGINEERING SIGNOFF (if required)
INSPECTED BY:	<u>1</u>	SIGNED OFF BY:
DATE:	<u>9-5</u>	DATE:
FEB 01 2018		

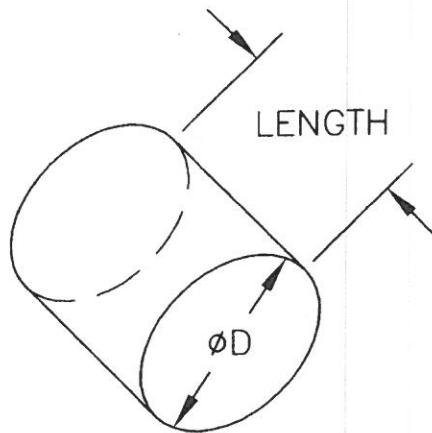
Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



DESIGN <i>PH</i>	DRAWN BY <i>PH</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>MM</i>	APPROVED <i>MM</i>	DRAWING NO. D6103	Rev. B SHEET 1 OF 1	
DATE 06.01.31		TITLE ROUND BILLET, ALUMINUM	SCALE NTS	
A	01.04.10	NEW ISSUE		
B	06.01.31	ADD D6103-003		

# SPECIFICATION CONTROL DRAWING

RELEASED  
06.12.07 



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, DIAMETER x LENGTH (+0.030/-0.000) AS SHOWN.

TOE FRANCE ON ALL DIMENSIONS IS +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

# Certified Inspection Report

07/14/17  
11:30:54

Arconic Inc.  
ARCONIC FORGINGS AND EXTRUSIONS  
45 County Route 42, Massena, NY 13662



Customer  
**Castle A M & Co**  
Customer P.O. No.  
**437398**

Customer Part No.  
**(8808)**

Arconic Order No.  
**MM/C-C3746 - 001**

Gov. Contract No.

Ship To  
**Castle A M & Co**  
3800 Enterprise Drive  
Janesville, WI 53546

We hereby certify that the material covered in this report has been inspected in accordance with, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, or as previously agreed with customer and that samples representative of the material meet the composition limits and have the mechanical properties shown on the face of this sheet. Manufactured under a quality management system registered to ISO 9001 16949 and AS9100.

*Joseph M. Vierino, Quality Manager*

Date Shipped **07/14/17** Weight Shipped **1,970 lbs.**  
Alloy **Temper** **7075-T7351** Weight Shipped **1,970 lbs.**  
Size **3.5000 IN**

Product **CFRB-CF ROD** Specific Length  
Shape **DIA** Config **12 FT**  
ORR  
BOL **000165011**

Specifications:

AMS4124E  
ASTM B211-12E<sup>1</sup>  
Material conforms to T73 rcpme  
Minimum mechanical properties to apply:  
56 KSI Yield Strength  
68 KSI Tensile Strength  
10% Elongation  
0.0A Elongation (Except Size)  
AMS-00-A-2259A (Except Size)  
A97075-11 Rev 16

TEST REQUIREMENTS

Test Results	No. of L.O.L Work Spec.	Max:	Test	Test	Test	Test	Test	Test	Test	Test	Test
			U.T.S.	T.Y.S.	%Elong	Cond	Test	Test	Test	Test	Test
MA20171470	1	Max:	68.0	57.9	10.0	38.0					
		Min:	68.0	56.0	10.0	38.0					

TEST ABBREVIATIONS

U.T.S. Ultimate Tensile Strength KSI  
Cond Conductivity % IACS

Aluminum Association Chemical Composition Limits (in Weight %)

ALLOY	%SI	%FE	%CU	%MN	%MG	%CR	%ZN	%TI	%Others	%Others	%AL
7075	MAX 0.40	0.50	2.0	0.30	2.9	0.28	6.7	0.20	0.05	0.75	Rem

Actual Started Chemistry

LOT/WORK ORDER	%SI	%FE	%CU	%MN	%MG	%CR	%ZN	%TI	%O&E	%OT	%AL
MA20171470	MAX 0.03	0.11	1.6	0.00	2.5	0.19	5.8	0.02	LT 0.05	LT 0.15	Rem

NOTES:

Impurity Source: Lafayette  
Material compliant with DFARS 252.275-7001 (Buy American Act)  
Mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product.

# Certified Inspection Report

07/14/17  
11:30:54

Arconic Inc.  
ARCONIC FORGINGS AND EXTRUSIONS  
45 County Route 42, Massena, NY 13662



Customer P.O. No. 437398

Customer Part No. 18808

Arconic Order No. MMC-C3746-001

Govt. Contract No.

Notes (continued)

This alloy meets the requirements of EU 2011/65/EC (RoHS) and EU 2000/53/EC for lead, mercury, cadmium and hexavalent chromium.

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 06104-005  
 DATE: FEB 01 2018

PO / BATCH NO. 058795/5037824

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 10 pcs  
 QUANTITY INSPECTED: 10 pcs  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 4.00  
 THICKNESS RECEIVED: 4.00  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	(Check Y/N)	Comments
SURFACE DAMAGE	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> <input type="checkbox"/> N	<i>Ams 5643</i>
CORRECT THICKNESS	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> <input type="checkbox"/> N	<i>Heat # 5561</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>DAS</u> <u>11</u> <u>9-89</u>		SIGNED OFF BY: _____	
DATE: <u>FEB 01 2018</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

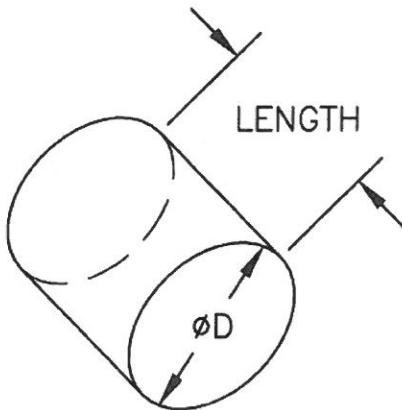
**DART**

DESIGN RF	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6104	Rev. B SHEET 1 OF 1
DATE 02.11.25		TITLE ROUND BILLET, 17-4	SCALE NTS
A	01.04.10	NEW ISSUE	
B	02.11.25	CLARIFY ALLOY SPEC ADDED D6104-009/-011 REDUCE LENGTH OF BILLETS	

RELEASED

02.11.29 *[Signature]*

## SPECIFICATION CONTROL DRAWING



MATERIAL: 17-4 PH SS (AMS 5643 OR AISI 630) MIN UTS = 170 KSI (38 HRc)

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, DIAMETER x LENGTH (+0.030/-0.000) AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES

Part No.	Alloy	D (Diameter)	Length
D6104-001	17-4 PH STAINLESS STEEL	Ø3.00	3.80
D6104-003	17-4 PH STAINLESS STEEL	Ø3.25	3.80
D6104-005	17-4 PH STAINLESS STEEL	Ø4.00	5.10
D6104-007	17-4 PH STAINLESS STEEL	Ø4.50	5.10
D6104-009	17-4 PH STAINLESS STEEL	Ø5.25	4.10
D6104-011	17-4 PH STAINLESS STEEL	Ø6.50	4.10

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